

**Notice of Allowability**

Application No.

10/692,804

Applicant(s)

MIYAGOSHI ET AL.

Examiner

Syed Y. Hasan

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/10/2007.
2. ☒ The allowed claim(s) is/are 1 - 27 (renumbered).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 10/27/2003, 11/04/2005 and 11/30/2006.

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1 - 27 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter:

The present invention of claims 1 - 27 is directed to a method and device for ensuring storage time for digital broadcast.

Independent claim 1 identifies the unique distinct feature “monitoring a predetermined recording time for the broadcast and a bit-rate of the broadcast in the compressed state and calculating, in real time, a required capacity of a storage medium; determining whether or not said calculated required capacity of the storage medium can be contained within an empty area or a freely limited area of the storage medium; if said calculated required capacity of the storage medium cannot be contained as the result of said determination, converting, in real time, said bit-rate of the broadcast into a smaller one by decoding and then re-compressing the broadcast data in the compressed state; and storing said converted broadcast in said storage medium.”

The closet prior art, Kikuchi et al (US 7136573) discloses monitoring signal from the tv tuner (col 10, lines 44 – 45), has a bit-rate computing section (col 9, lines 47 -48) has a real time recording dvd (col 4, lines 31 – 32) and estimates the remaining recording time for the recording surface (col 2, lines 60 – 64) but does not disclose monitoring the predetermined recording time and a bit-rate of the broadcast and

performing a real time the required capacity of the storage medium and then convert in real time the bit-rate of the broadcast in order to store the broadcast. Another prior art, Sezer et al (US 2003/0118243) discloses monitoring the actual bit rate (para 0202) but does not disclose real time calculation to adjust the bit rate for recording purposes.

Hence claim 1 is allowed.

Since claims 2 - 21 are dependent on claim 1, therefore they are allowed.

Independent claim 22 identifies the unique distinct feature " a required capacity calculation circuit for monitoring a predetermined recording time of the broadcast and a bit-rate of the broadcast in the compressed state and calculating, in real time, a required capacity of the storage medium; a determination circuit for determining whether or not the required capacity of the storage medium calculated in said required capacity calculation circuit can be contained within an empty or freely limited area in the storage medium; and a bit-rate conversion circuit for, if said calculated required capacity of the storage medium cannot be contained as the result of said determination by said determination circuit, converting, in real time, said bit-rate of the broadcast into a smaller one by decoding and then re-compressing the broadcast data in the compressed state and storing the converted broadcast in said storage medium."

Claim 22 is a device claim that reads on method claim 1 above. It is allowed for the reasons specified for claim 1 above.

Hence claim 22 is allowed.

Since claims 23 - 27 are dependent on claim 22, therefore they are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Y. Hasan whose telephone number is 571-270-1082. The examiner can normally be reached on 9/8/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Y. H.  
12/21/2007

  
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